Pratyush Bindal

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Education

Birla Institute of Technology and Science, Pilani

Aug 2022 - July 2026

Bachelor of Engineering in Computer Science (CGPA: 9.61 / 10.00)

Hyderabad, Telangana

• Relevant Coursework: Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Database Systems, Object Oriented Programming, Operating Systems, Computer Architecture, Computer Networks

G. D. Goenka Public School

April 2018 - July 2022

High School (Class XII: 96.6% and Class X: 97.6%)

Muzaffarnagar, Uttar Pradesh

Experience

Software Engineer Intern

May 2025 - Present

Microsoft

Hyderabad, Telangana

- Performed detailed startup analysis using profiling tools to identify performance bottlenecks and latency issues in a large-scale Android application
- Contributed to critical code optimisations and streamlined execution flows to improve startup performance and enhance overall application responsiveness

Undergraduate Teaching Assistant - BITS F464 (Machine Learning)

Jan 2025 - May 2025

Birla Institute of Technology and Science, Pilani

Hyderabad, Telangana

 Created practice sets, designed assignments, and provided conceptual support to over 150 students on advanced Machine Learning topics

Summer Research Intern

May 2024 - July 2024

Indian Institute of Remote Sensing (IIRS), Indian Space Research Organisation (ISRO)

Dehradun, Uttarakhand

Led a 4-member team in implementing Transformer-based (Grounding DINO) and CNN-based (YOLOv8, v9, v10)
 computer vision models for ship detection and automatic feature extraction from satellite images

Undergraduate Teaching Assistant - PHY F111 (Mechanics, Oscillations and Waves)

Aug 2023 - Dec 2023

Birla Institute of Technology and Science, Pilani

Hyderabad, Telangana

· Prepared study materials, helped conduct evaluations, and mentored nearly 500 undergraduate students

Skills

Languages: C, C++, Java, Python, HTML, CSS, SQL, JavaScript, TypeScript, Prolog, Verilog HDL, Assembly **Frameworks, Libraries & Tools**: React, SolidJS, Spring Framework, TensorFlow, PyTorch, Simpleperf

Databases: Oracle MySQL, PostgreSQL, Supabase, Firebase Realtime DB, MongoDB

Projects

DRL-based Anomaly Detection in WBANs [Patent IDF Filed] | Python, React, PyTorch and related libraries

- Designed a novel deep reinforcement learning framework for anomaly detection in healthcare-focused WBANs
- Built a full-stack web application with an interactive frontend, model-integrated backend, and LLM-powered
 assistant for user query resolution

Reinforcement Learning In Cybersecurity | Python, PyTorch and related libraries

- Implemented AE-SAC and Twin Delayed DDPG (TD3) Algorithms on the NSL-KDD Dataset for Intrusion Detection
- Established ML-based Intrusion Detection System on the NSL-KDD Dataset to map alert-attack relations

BITSBids | React, Spring Framework, Mongo DB, Maven

- Developed ready-to-scale Full Stack Bidding Website exclusive to BITSians via Google OAuth2 Authorisation
- · Applied Dynamic Price Updation, Multiple Bids Prioritisation, Anonymous Chat Client, and Filtered Product Search

StarWars Databank | Typescript, SolidJS, Supabase, PL/pgSQL

- Contributed to a DataBank Website for storing, analysing, and categorising information about the Star Wars world
- Created Frontend using SolidJS & used PostgreSQL in Supabase for developing backend database system

Honours and Awards

- 100% Merit & 80% Merit-cum-Need Scholarships Awardee (Awarded to top 1% & top 3% of the batch respectively)
- Ranked among top 255 nationally in IOQA 2020–21 conducted by IAPT-HBCSE